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| 10/087,437 | 03/02/2002 | Kimmo Laiho | 004770.00033 | 3461 |

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| EXAMINER |
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GANTT, ALAN T

| ART UNIT | PAPER NUMBER |
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| 2684 | |

DATE MAILED: 07/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/087,437 | Applicant(s) LAIHO ET AL. | |
| | Examiner Alan T. Gantt | Art Unit 2684 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-18 is/are allowed.
- 6) ☒ Claim(s) 19, 20, 22-25, 31, 34, 36-38, 40 and 46 is/are rejected.
- 7) ☒ Claim(s) 21, 26, 29, 30, 32, 33, 35, 39, 41-45 and 47-51 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>20805,32805</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 1/11/05 have been fully considered. Applicant has provided a sworn declaration that their invention predates the filing date of the Pekonen reference. Since Mr. Pekonen was one of the signer of that document, the examiner accepts the declaration and removes the previous Pekonen reference as a bar to allowance of the current Application. However, some of the remaining independent claims are presented with broad language upon which other prior art still reads.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 19, 20, 22, 23, 24, 25, 31, 34, 36, 37, 38, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cleveland et al., in view of Cameron.

Regarding claim 19, Cleveland discloses a system and method for increasing a data transmission rate sent by a base station when a first data rate was received with errors. The mobile station comprises a replacement data packet controller that replaces mission or error data packets. Thus, Cleveland, discloses a mobile terminal suitable for receiving streaming information provided by a service provider, said mobile terminal comprising:

a digital broadcast receiver for receiving at least a first portion of said streaming information as a transmission burst; (paragraphs 0080 and 0081)

a receiver input buffer for storing said transmission burst; (Figure 3, paragraphs 0058-0060)

Cleveland does not disclose a mobile terminal having means for powering down the receiver at a predetermined power-down time.

Cameron discloses a Cameron discloses the feature of powering up and down at predetermined times. Thus, Cameron teaches the following limitation:

means for powering up said digital broadcast receiver (41) at a predetermined powered-up time; (col. 17, line 55 to col. 18, line 6) and

means for powering down said digital broadcast receiver (41) at a predetermined powered-down time. (col. 17, line 55 to col. 18, line 6)

Cleveland and Cameron are combinable because they share a common endeavor, namely, wireless telecommunications. At the time of the applicant's invention it would have been obvious to modify Cleveland to include a means of powering up and powering down a receiver to receive a predetermined arrival time signal as done by Cameron as a means of power conservation.

Regarding claim 20, Cameron meets the limitation - The mobile terminal as in claim 19 wherein said pre-determined powered-up time occurs a specified period of time subsequent to said pre-determined powered-down time. (paragraph)

Regarding claim 22, Cameron meets the limitation - The mobile terminal as in claim 19 wherein said pre-determined powered-up time occurs an incremental period of time prior to occurrence of said transmission burst. (paragraph 0074)

Regarding claim 23, Cameron meets the limitation - The mobile terminal as in claim 22 wherein said incremental period of time comprises a member of the group consisting of: a bit rate adaptation time, a receiver switch-on time, a receiver acquisition time, and a bit-rate variation time interval. (paragraph 0070)

Regarding claim 24, Cameron meets the limitation - The mobile terminal as in claim 19 wherein said pre-determined powered-down time occurs a specified period of time subsequent to said pre-determined powered-up time. (paragraph 0074)

Regarding claim 25, Cameron meets the limitation - The mobile terminal as in claim 24 wherein said specified period is at least as great as said transmission burst duration. (paragraph 0052)

Regarding claim 27, Cameron meets the limitation - The mobile terminal as in claim 19 wherein said pre-determined powered-up time occurs an incremental period of time subsequent to transmission of said transmission burst (53). (paragraph 0074)

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Regarding claim 28, Cameron meets the limitation - The mobile terminal as in claim 19 further comprising an application processor (47) for converting said transmission burst (53) into an information data stream (49). (paragraph 0058-0063)

Regarding claim 31, Cleveland discloses a system and method for increasing a data transmission rate in mobile wireless channels. Cleveland comprises a base station that is capable of sending replacement data packets to a mobile station at a first data rate and then sending replacement data packets at a second higher data rate to replace missing or error data packets. Cleveland meets the following limitations for a digital broadcasting system comprising:

- an information service provider for providing streaming information; (paragraph 0002 and 0012 –the base station typically belongs to the service provider, also)

- a transmitter system for broadcasting at least a portion of said streaming information as a transmission burst, said transmitter system including a service input buffer; (Figure 3, paragraph 0058-060) and

- a mobile terminal for receiving said transmission burst, said mobile terminal including a digital broadcast receiver and a receiver input buffer for buffering said transmission burst, (Figure 3 and paragraphs 0058-0060)

Cleveland does not disclose a mobile terminal having means for powering down the receiver at a predetermined power-down time.

Cameron discloses a Cameron discloses the feature of powering up and down at predetermined times. Thus, Cameron teaches the following limitation:

said mobile terminal (40) including a digital broadcast receiver (41) and a receiver input buffer (45) for buffering said transmission burst (141), said mobile terminal (40) further including means for powering down said digital broadcast receiver (41) at a predetermined powered-down time. (col. 17, line 55 to col. 18, line 6)

Cleveland and Cameron are combinable because they share a common endeavor, namely, wireless telecommunications. At the time of the applicant's invention it would have been obvious to modify Cleveland to include a means of powering up and powering down a receiver to receive a predetermined arrival time signal as done by Cameron as a means of power conservation.

Regarding claim 34, Cleveland meets the limitation - The digital broadcasting system (100) as in claim 31 wherein the information service provider (101) provides at least one service via at least one information stream. (paragraph 0037)

Regarding claim 36, Cameron meets the limitation - The digital broadcasting system as in claim 31 wherein said mobile terminal (40) further comprises means for powering up said digital broadcast receiver (41) at a predetermined powered-up time. (col. 17, line 55 to col. 18, line 6)

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Regarding claim 37, Cameron meets the limitation - The digital broadcasting system as in claim 36 wherein said pre-determined powered-up time occurs an incremental period of time prior to occurrence of said transmission burst. (col. 17, line 55 to col. 18, line 6)

Regarding claim 38, Cameron meets the limitation - The digital broadcasting system (100) as in claim 36 wherein said pre-determined powered-up time occurs a specified period of time subsequent to said pre-determined powered-down time. (col. 17, line 55 to col. 18, line 6 – this handles continuous streaming)

Regarding claim 40, Cleveland meets the limitation - The digital broadcasting system (100) as in claim 31 further comprising an application processor (47) for converting said transmission burst (141) into an information data stream (49). (Figure 3, ref. 372, and 373)

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 46 is rejected under 35 U.S.C. 102(e) as being anticipated by Cleveland et al.

Regarding claim 46, Cleveland discloses a system and method for increasing a data transmission rate in mobile wireless channels. Cleveland comprises a base station that is capable of sending replacement data packets to a mobile station at a first data rate and then sending replacement data packets at a second higher data rate to replace missing or error data packets. Cleveland, thus, discloses a data transmitter system (130) for transmitting streaming information, said transmitter system (130) comprising:

a service input buffer for receiving the streaming information from a service provider; (Figure 3; paragraph 0058-060) and

a digital broadcast transmitter (135) for transmitting said streaming information as bursts at a higher bit rate than the rate at which said streaming information is received from said service provider (101). (paragraph 0012)

Allowable Subject Matter

Claims 1-18 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 1, the transmitting of buffered data as a transmission burst in a time-slicing signal was neither found, suggested, nor made evident by the prior art.

Claims 21, 26, 29, 30, 32, 33, 35, 39, 41-45, and 47-51 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 21, 26, 35, and 39, the predetermined powered-up and powered-down times occurring at the setting of a flag indicating an almost-empty and almost full-time, respectively, was neither found, suggested, nor made evident by the prior art.

Regarding claims 29 and 41, a mobile terminal that comprising a stream filter for stripping encapsulation from the data burst was neither found, suggested, nor made evident by the prior art.

Regarding claim 32, a usage factor for a receiver input buffer as function of a usage factor of a service input buffer was neither found, suggested, nor made evident by the prior art.

Regarding claim 33, a startup time for turning on a digital broadcast receiver being controlled by the usage factor such that the receiver the first burst with a minimum of delay was neither found, suggested, nor made evident by the prior art.

Conclusion

Any inquiry concerning this communication from the examiner should be addressed to Alan Gantt at telephone number (571) 272-7878. The examiner can normally be reached between 9:30 AM and 6 PM within the Eastern Time Zone. The group FAX number is (571) 273-8300.

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Any inquiry of a general nature or relating to this application should be directed to
Supervisory Patent Examiner Nay Maung at telephone number (571) 272-7882.

Alan T. Gantt

Alan T. Gantt

June 29, 2005

Nay Maung
NAY MAUNG

SUPERVISORY PATENT EXAMINER